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- 1. Federal Motor Carrier Safety Regulations (FMCSRs)
- 2. Driver Qualification Packets
- 3. Accident Countermeasure Manuals

The Office of Motor Carriers does <u>not</u> stock or supply manuals and forms, such as the FMCSRs, "Accident Countermeasure" Manuals, Medical Examiner's Certificates, Driver's Qualification File Forms, Driver's Daily Log Books, Hazardous Materials Placards, Hazardous Materials Labels, etc. They may be obtained from printing firms, State motor carrier associations, or other sources including, but not confined to, those listed below. Please note that the following suppliers may carry only certain items.

American Trucking Association
2200 Mill Road
Alexandria, VA 22314
1-800-282-5463
Lancer Insurance Company
370 West Park Avenue
Long Beach, NY 11561
(516) 431-4441

(Accident Countermeasure Manual) (Bus-Accident Countermeasures Manual)

ArtCrest, Inc.

Monroe Office Supply Company
2003 South Louisiana
100 South Jefferson Street
Little Rock, AR 72201
Chicago, IL 60606
(501) 374-6427
(Placards & Labels)
(Various forms and manuals)

Custom Design & Consultation
4129 Kenwood Avenue
P.O. Box 323
Gurnee, IL 60031-2047
Linden, NJ 07036
(708) 623-1175
(Accident Countermeasure Manual)

Motor Carrier Forms, Inc.
P.O. Box 323
Linden, NJ 07036
(908) 925-5135
(Various forms and manuals)

Jack Bilt Corporation (Your) State Motor Carrier Association 906 Central Street (See the white pages of telephone directory in state capital city for address

(816) 842-5068 and number)

J.J. Keller & Associates Triodyne, Inc.

 145 West Wisconsin Avenue
 5950 West Toughy Avenue

 Neenah, WI 54956
 Niles, IL 60714-4610

 1-800-558-5011
 (708) 677-4730 Ext. 162

(Accident Countermeasure Manual) (Accident Countermeasure Manual)

Superintendent of Documents U.S. Government Printing Office Washington, D.C. 20402 (202) 783-3238

Federal Motor Carrier Safety Regulations
Federal Hazardous Materials Regulations
49 CFR Parts 200-399
49 CFR Parts 100-177
HM Container Regulations
49 CFR Parts 178-199





I'm George Reagle, the Associate Administrator of the Office of Motor Carriers in Washington, D.C. My office is responsible for the issuance, administration, and enforcement of the Federal Motor Carrier Safety Regulations, 49 CFR Parts 325, 350, 382-399, the Hazardous Materials Regulations, 49 CFR Parts 100-180, as well as Part 40 as it pertains to the drug and alcohol testing requirements. As a motor carrier, you have the responsibility to comply with these regulations.

To assist you in your compliance effort, we are providing you with this educational and technical assistance package which contains summaries of key regulations. A complete copy of the regulations should be obtained for a thorough understanding.

Our experience has shown that compliance with these regulations as part of your safety management program will improve the safety and efficiency of your operation, and reduce accidents and insurance costs.

If you have any questions regarding the regulations or your safety responsibilities, please contact the local Office of Motor Carriers in your State (see enclosed list). We very much appreciate your time and hope that you will join us in a partnership for highway safety.

Sincerely,

George L. Reagle Associate Administrator for Motor Carriers



INTRODUCTION

The Federal Highway Administration's Office of Motor Carriers (OMC) has produced this "Partnership in Highway Safety" educational and technical assistance package. This package provides basic compliance guidance to the Federal Motor Carrier Safety Regulations (FMCSRs). However, it is not intended to be a substitute for these regulations. To purchase a complete copy of the FMCSRs, Parts 300-399, contact the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, telephone: (202) 512-1800.

Our overall goal is to improve the safe transportation of passengers and goods on the nation's highways, through a coordinated effort of Federal, State, and industry organizations to reduce fatalities, injuries, property damage and Hazardous Materials incidents. We implement this safety and compliance program through a national network of nine regional and sixty-six field offices.

This package is comprised of folders, each containing a specific safety regulation topic that is covered in the FMCSRs. These folders are color coded by topic and are listed in the Table of Contents. Each folder contains information sheets that cover the highlights of that section. Please feel free to reproduce any or all material in this package and to distribute copies as needed.

It is the responsibility of motor carrier operators and drivers to know and comply with all applicable FMCSRs. Safety compliance and safe operations translate into saved lives and property. We believe the information in this package, when effectively applied, will contribute to safer motor carrier operations and highways.



FIELD OFFICE DIRECTORY

U.S. Department of Transportation Federal Highway Administration Office Of Motor Carriers

Note: All Addresses should be preceded by

FEDERAL HIGHWAY ADMINISTRATION (FHWA), OFFICE OF MOTOR CARRIERS

ALASKA Federal Building & U.S. Courthouse Room 201 222 West 7th Avenue #7 Anchorage, Alaska 99513-7530 907-271-4068

ALABAMA 500 Eastern Boulevard Suite 200 Montgomery, Alabama 36117-2018 205-223-7244

ARIZONA 234 North Central Avenue Suite 305 Phoenix, Arizona 85004 602-379-6851

ARKANSAS 3414 Federal Building 700 W. Capital Street Little Rock, Arkansas 72201 501-324-5050

CALIFORNIA 980 Ninth Street Suite 450 Sacramento, California 95814-2724 916-498-5050

22690 Cactus Avenue Suite 250 Moreno Valley, California 92553 909-653-2299

COLORADO 555 Zang Street Room 250 Lakewood, Colorado 80228 303-969-6748 CONNECTICUT 628-2 Hebron Avenue Suite 303 Glastonbury, Connecticut 06033 (202) 659-6700

DELAWARE Federal Office Building 300 South New Street, Room 2101 Dover, Delaware 19901 302-734-4216

DISTRICT OF COLUMBIA Union Center Plaza Suite 750 820 First Street, N.E. Washington, DC 20002 202-523-0178

FLORIDA Marble Arcade Building 129 South Kentucky Avenue Suite 510 Lakeland, FL 33801 813-686-1294

227 N. Bronough Street Room 2060 Tallahassee, Florida 32301 904-942-9683

GEORGIA 1718 Peachtree Road, NW Suite 476 Atlanta, Georgia 30367 404-347-4966

HAWAII Prince Jonah Kuhio Kalanianaole Building 300 Ala Moana Boulevard Suite 3202 Box 50206 Honolulu, Hawaii 96850 808-541-2700 IDAHO 3050 Lakeharbor Lane Suite 126 Boise, Idaho 83703 208-334-1842

ILLINOIS 3250 Executive Park Drive Springfield, Illinois 62703 217-492-4602

INDIANA Minton-Capehart Federal Building 575 North Pennsylvania Street Room 261 Indianapolis, Indiana 46204 317-226-7474

IOWA 105 6th Street P.O. Box 627 Ames, Iowa 50010 515-233-7400

KANSAS 3300 South Topeka Blvd. Suite One Topeka, Kansas 66611-2237 913-267-7288

KENTUCKY Federal Building & U.S. Courthouse 330 West Broadway P.O. Box 536 Frankfort, Kentucky 40601 502-223-6779

LOUISIANA 301 Federal Building 750 Florida Boulevard P.O. Box 4126 Baton Rouge, Louisiana 70821 504-389-0390 MAINE Federal Building and U.S. Post Office 40 Western Avenue, Room 614 Augusta, Maine 04330 207-622-8358

MARYLAND The Rotunda 711 West 40th Street, Suite 220 Baltimore, Maryland 21211 410-962-2889

MASSACHUSETTS Volpe National Transportation Systems Center 55 Broadway, Bldg. 3, Room 135 Cambridge,Massachusetts 02142 617-494-2770/2733

MICHIGAN Federal Building 315 West Allegan Street Room 205 Lansing, Michigan 48933 517-377-1866

MINNESOTA Metro Square Building Suite 490 7th and Robert Streets St. Paul, Minnesota 55101 612-290-3260

MISSISSIPPI 666 North Street, Suite 105 Jackson, Mississippi 39202-3199 601-965-4219

MISSOURI 209 Adams Street P.O. Box 1787 Jefferson City, Missouri 65102 314-636-3246

MONTANA 301 South Park Street Drawer 10056 Helena, Montana 59626-0056 406-449-5244

NEBRASKA Federal Building 100 Centennial Mall North Room 220 Lincoln, Nebraska 68508-3851 402-437-5521

NEVADA 705 North Plaza Street Suite 220 Carson City, Nevada 89701 702-687-5335 NEW HAMPSHIRE Federal Building 279 Pleasant Street Room 202 Concord, New Hampshire 03301 603-225-1626

NEW JERSEY 840 Bear Tavern Road, Suite 310 West Trenton, New Jersey 08628 609-637-4222

275 Paterson Avenue Little Falls, New Jersey 07424 201-357-4134

NEW MEXICO 6000 Uptown Boulevard, NE Room 303 Albuquerque, New Mexico 87110-4141 505 883-7858

NEW YORK Leo W. O'Brien Federal Building, 9th Floor Clinton and Pearl Streets Albany, New York 12207 518-431-4137

Federal Office Building Room 909B 111 West Huron Street Buffalo, New York 14202 716-846-4701

U.S. Customs House 6 World Trade Center Room 320 New York, N.Y. 10048 212-466-1935

James M. Hanley U.S. Courthouse & Federal Building, Room 129 P.O. Box 7065 Syracuse, New York 13261 315-448-0311

NORTH CAROLINA 310 New Bern Avenue Room 468 Raleigh, North Carolina 27601 919-856-4378

NORTH DAKOTA 1471 Interstate Loop Bismarck, North Dakota 58501 701-250-4346

OHIO 200 North High Street Room 328 Columbus, Ohio 43215 614-469-5657 OKLAHOMA 715 S. Metropolitan, Suite 700 Oklahoma City, OK 73108 405-945-6047

OREGON The Equitable Center, Suite 100 530 Center Street, NE Salem, Oregon 97301 503-399-5775

PENNSYLVANIA Federal Building, Room 570 228 Walnut Street P.O. Box 1086 Harrisburg, Pennsylvania 17108 717-782-4443

Linpro Centre 900 East Eight Avenue Suite 202 King of Prussia, Pennsylvania 19406 610-992-8680

Federal Building 1000 Liberty Avenue Room 305 Pittsburgh, Pennsylvania 15222 412-644-2935

U.S. Courthouse & Federal Building Room 320 235 North Washington Avenue Scranton, Pennsylvania 18503 717-346-4949

PUERTO RICO U. S. Courthouse & Federal Bldg. Room 329 Carlos Chardon Street Hato Rey, Puerto Rico 00918 809-766-5985

RHODE ISLAND 380 Westminster Mall Room 547 Providence, Rhode Island 02903 401-528-4578

SOUTH CAROLINA 1835 Assembly St., Suite 758 Columbia, South Carolina 29201-2430 803-765-5414

SOUTH DAKOTA 116 East Dakota Street P.O. Box 700 Pierre, South Dakota 57501 605-224-8202 TENNESSEE 263 Cumberland Bend Drive Nashville, Tennessee 37228 615-736-5951/7117

TEXAS 826 Federal Building 300 East 8th Street Austin, Texas 78701 512-482-5474

2212 Arlington Downs Center Suite 101 Arlington, Texas 76011 817-633-6875

2320 LaBranch Room 1218 Houston, Texas 77004 713-750-1678/1679

1205 Texas Avenue, Room 117 Lubbock, Texas 79401 806-743-7664

615 East Houston Street Room 573 San Antonio, Texas 78205 210-229-5616

UTAH 2520 West 4700 South Suite 9B Salt Lake City, Utah 84118 801-963-0096 VERMONT Federal Building, Room 216 87 State Street P.O. Box 568 Montpelier, Vermont 05602 802-828-4480

VIRGINIA The Dale Building, Suite 205 1504 Santa Rosa Road Richmond, Virginia 23229 804-281-5120

Poff Federal Building Room 112B 210 Franklin Road, SW Roanoke, Virginia 24011 703-857-2357

WASHINGTON Evergreen Plaza, Suite 501 711 South Capital Way Olympia, Washington 98501 360-753-9875 WEST VIRGINIA 550 Eagan Street Suite 300 Charleston, West Virginia 25301 304-347-5935

WISCONSIN 4502 Vernon Boulevard Madison, Wisconsin 53705-4905 608-264-5215

WYOMING 1916 Evans Avenue Cheyenne, Wyoming 82001 307-772-2305



ALCOHOL AND DRUG TESTING PART 382



Applicability

Drivers required to have a commercial drivers license (CDL) are subject to the controlled substance and alcohol testing rules. This requirement extends to those drivers currently covered by the rule, including interstate and intrastate truck and motor coach operations.

This includes commercial motor vehicles operated by:

- For-hire and private companies
- Federal, State, local, and tribal governments
- Church and civic organizations
- Farmers and custom harvesters
- Apiarian industries

Exemptions

- Drivers exempt from commercial driver's license requirements by their issuing State
- Companies domiciled outside of the United States
- Active duty military personnel

Alcohol testing implementation date

- Large companies (50 or more drivers as of March 17, 1994) must meet these requirements beginning January 1, 1995.
- Small companies (1 to 49 drivers as of March 17, 1994) must meet these requirements beginning January 1, 1996.

Types of alcohol and controlled substance tests

<u>Pre-employment:</u> No employer shall allow a driver to perform a safety sensitive function until they have received the negative controlled substance test result.

Random: Companies are to randomly test drivers at a minimum annual percentage rate of 25% of the number of drivers for each selection period for alcohol testing, and 50% for controlled substances testing. The random alcohol test must be performed immediately prior, during or immediately after a driver is about to, or has performed a safety sensitive function as defined in Section 395.2. All drivers must have an equal chance of being selected.

Follow-up: If a Substance Abuse Professional has determined that a driver needs assistance for the misuse of alcohol, or for use of a controlled substance, an employer must ensure that the driver is subject to follow-up testing. A minimum of six tests must be conducted in the first 12 months, and the driver may only be subject to this test for a maximum of 60 months.

Retention of records

Five Years:

- Alcohol test results indicating a Breath Alcohol Concentration (BAC) of 0.02 or greater
- Verified positive drug test results
- Refusals to submit to required alcohol and drug tests
- Required calibration of Evidential Breath Testing (EBT) devices

Two Years:

Records related to the collection process and required training

One Year:

- Negative and canceled controlled substance test results
- Alcohol test results indicating a BAC of less than 0.02

Location of records

All required records shall be maintained in a secure location with limited access, and shall be made available for inspection by an authorized representative of the Federal Highway Administration.

Supervisor Training/Driver awareness Every motor carrier shall provide educational materials explaining the requirements of the regulations as well as the employer's policies regarding alcohol misuse and controlled substances abuse. At a minimum, detailed discussions should include:

- The identity of the person designated to answer drug and alcohol questions
- Which drivers are subject to these requirements, what behavior is prohibited, and a clarification of what a "safety sensitive function" is.
- The circumstances under which a driver will be tested, and the procedures that will be used for testing.
- Explanations of the requirement that a driver submit to the testing, as well as what constitutes a driver's refusal to submit to testing.
- The consequences for drivers who have violated the testing requirements.
- Information concerning the effects of alcohol misuse, and controlled substances abuse on health, work, and personal life.



COMMERCIAL DRIVER'S LICENSE STANDARDS PART 383



Commercial Driver's License Standards: Requirements and Penalties - Part 383

The licensing provisions in Part 383 are intended to help reduce accidents by setting standards that:

- Require commercial drivers to be properly qualified and to hold a single valid driver's license (CDL); and
- Disqualify drivers who do not operate *Commercial Motor Vehicles(CMV)* safely.

Commercial **Driver's License Information** System (CDLIS) The CDLIS enables the States to exchange information about the driving records and driver's licenses of CMV drivers. This helps assure that only one license is issued to a driver and that drivers currently disqualified are prevented from obtaining a CDL. Employers have access to the CDLIS clearinghouse through their State's vehicle licensing agency.

Vehicles requiring commercial driver's licenses

Drivers must hold CDLs if they operate in interstate, intrastate, or foreign *commerce* and drive a vehicle:

- With Gross Combination Weight Rating (GCWR) of 26,001 or more pounds, inclusive of a towed unit with a Gross Vehicle Weight Rating (GVWR) of more than 10,000 pounds; or
- With GVWR of 26,001 or more pounds; or
- Designed to carry sixteen or more passengers, including the driver; or
- Transporting a quantity of *hazardous materials* requiring placarding.
- Because the CDL is a State-issued license, you should check with appropriate State officials regarding particular license classes and specific exemptions.

Notification to employer and licensing State Upon *conviction* for *any* State or local traffic violation, a driver must notify his/her employer(s) within 30 days. This notification must be in writing and must include the following information:

- Driver's full name
- Driver's license number
- Date of conviction
- Details about the offense, including any resulting suspension, revocation, or cancellation of driving privileges
- Indication of whether the violation happened in a CMV
- Location of offense, and
- Driver's signature.

Disqualifying offenses

No employer shall knowingly allow, require, permit, or authorize a disqualified driver to drive a CMV. Disqualifying offenses include

- Driving a CMV while *under the influence of alcohol*.
- Driving a CMV while under the influence of a disqualifying drug or other controlled substance.
- Leaving the scene of an accident that involves a CMV
- Using a CMV to commit a felony.

Penalties

- First conviction -One year disqualification
- First conviction while transporting hazardous materials -Three year disqualification
- Subsequent convictions -Lifetime disqualification

A driver convicted of a felony offense for using a CMV for manufacturing, distributing or dispensing a controlled substance is disqualified for life, but may be eligible for reinstatement after ten years.

Suspensions for traffic violations 60-day suspension For traffic violations a 60-day suspension will be imposed following conviction for *two serious traffic violations* while driving a CMV within three years.

These violations include:

- Excessive speeding (15 miles per hour or more above the posted speed limit in a single offense)
- Reckless driving, improper or erratic lane changes, or following the vehicle ahead too closely; and
- Traffic offenses linked to fatalities.

120-day suspension

A 120-day suspension will be imposed following three convictions of any serious violations within three years.

Implied consent

Any CDL holder is automatically considered to have consented to alcohol testing by any State or jurisdiction.

Endorsements

In addition to knowledge and skills test, drivers who operate specialized commercial motor vehicles must pass additional tests and obtain endorsements on their CDLs, as follows:

- **T** Double/triple trailers (knowledge test only)
- **P** Passenger (knowledge and skills tests)
- **N** *Tank vehicle* (knowledge test only)
- **H** Hazardous materials (knowledge test only)
- **X** Combination of tank vehicle and hazardous materials (knowledge tests)

Air brake restrictions

If an applicant fails the air brake section of the knowledge test, or performs the skills test in a vehicle not equipped with air brakes, his/her CDL, if issued, will indicate that the license holder may not operate any CMV equipped with air brakes.

Note: For the purposes of the skills test and the license restriction, air brakes include any braking system that operates fully or partially on the air brake principle.



SAFETY FITNESS PROCEDURES PART 385

A motor carrier receives a safety rating when the safety specialist conducts an on-site review of the carrier's compliance with the Federal Motor Carrier Safety Regulations and the Hazardous Materials Regulations. The specialist reviews records, evaluates roadside vehicle inspection data, and accidents to determine whether a motor carrier meets Section 385.5 Safety Fitness standard.

Safety ratings

The safety ratings are:

- Satisfactory: A motor carrier has in place and functioning adequate safety manage ment controls to meet the safety fitness standard prescribed in Section 385.5. Safety management controls are adequate if they are appropriate for the size and type of operation of the particular motor carrier.
- *Conditional*: A motor carrier does not have adequate safety management controls in place to ensure compliance with the safety fitness standard that could result in the occurrences listed in Section 385.5(a) through (h).
- *Unsatisfactory*: A motor carrier does not have adequate safety management controls in place to ensure compliance with the safety fitness standards which has resulted in occurrences listed in Section 385.5(a) through (h). Motor carriers receiving an "unsatisfactory safety rating" may be subject to the provisions of Section 385.13.

The motor carrier will receive written notice of the safety rating.

A motor carrier transporting a placardable quantities of hazardous materials, or operating a vehicle designed to transport 15 or more passengers that has received an *unsatisfactory* safety rating from the Federal Highway Administration will have 45 calendar days from the effective date of that rating, or from the date of notice, whichever is later, to improve the safety rating to "conditional" or "satisfactory." If this improvement does not occur, the carrier is prohibited from operating commercial motor vehicles to transport hazardous materials or to transport more than 15 passengers. Also, a motor carrier with an unsatisfactory safety rating is ineligible to contract or subcontract the transportation of passengers or hazardous materials with Federal agencies.

Compliance review

A compliance review is an on-site examination of the motor carrier's records and operations to determine whether the carrier meets the safety fitness standard. The review may include an examination of the following aspects of the motor carrier's operations:

- Driver's hours of service
- Driver qualification
- Vehicle inspection and maintenance
- Financial responsibility
- Accidents
- Hazardous materials
- Other safety and transportation records
- Roadside vehicle out-of-service rate.

A compliance review is conducted to investigate potential safety violations, to investigate complaints, or is in response to a carrier's request for a change in safety rating. The results of the compliance review may result in the initiation of an enforcement action.

Safety fitness standard (Section 385.5)

The satisfactory safety rating is based on the degree of compliance with the safety fitness standard for motor carriers. To meet the safety fitness standard, the motor carrier shall demonstrate that it has adequate safety management controls in place that function effectively to ensure acceptable compliance with applicable safety requirements to reduce the risk associated with:

- Commercial driver's license standard violations (Part 383)
- Inadequate levels of financial responsibility (Part 387)
- The use of unqualified drivers (Part 391)
- Improper use and driving of motor vehicles (Part 392)
- Unsafe vehicles operating on the highways (Part 393)
- Failure to maintain accident registers and copies of accident reports (Part 390)
- The use of fatigued drivers (Part 395)
- Inadequate inspection, repair, and maintenance of vehicles (**Part 396**)
- Transportation of hazardous materials, driving and parking rule violations (Part 397)
- Violation of hazardous materials regulations (Parts 170 through 177)
- Motor vehicle accidents and hazardous materials incidents.

Factors to be considered in determining a safety rating (Section 385.7) The factors to be considered in determining the safety fitness and assigning a safety rating include information from safety reviews, compliance reviews, and any other data. The factors may include all or some of the following:

- Adequacy of safety management controls. The adequacy of controls may be ques tioned if their degree of formalization, automation, etc. is found to be substantially below the norm for similar carriers. Violations, accidents or incidents substantially above the norm for similar carriers will be strong evidence that management con trols are either inadequate or not functioning properly.
- Frequency and severity of regulatory violations
- Frequency and severity of driver/vehicle regulatory violations identified in roadside inspections
- Number and frequency of out-of-service driver/vehicle violations
- Increase or decrease in similar types of regulatory violations discovered during safety or compliance reviews in reviews
- Frequency of accidents; hazardous materials incidents; accident rate per million
 miles; preventable accident rate per million miles; other accident indicators; and
 whether these accident and incident indicators have improved or deteriorated over
 time
- The number and severity of violations of state safety rules, regulations, standards, and orders applicable to commercial motor vehicles and motor carrier safety that are compatible with Federal rules, regulations, standards, and order.

Request for a change in a safety rating; facts and procedure (Section 385.15)

A petition for review of a safety rating, where there are factual or procedural disputes, must list all issues in dispute and be accompanied by any information or documents the motor carrier is relying upon as basis for its petition.

Request for a change in a safety rating; corrective action taken (Section 385.17)

A request for a change in a safety rating may be made when the basis for the change is evidence that corrective actions have been taken, and that operations currently meet the safety fitness standard specified in Part 385.5.



MINIMUM LEVELS OF FINANCIAL RESPOSIBILITY FOR MOTOR CARRIERS PART 387

Financial responsibility means having insurance policies or surety bonds sufficient to satisfy the minimum public liability requirements. *Public liability* means liability for bodily injury, property damage, and environmental restoration. *Environmental restoration* means restitution for the loss, damage, or destruction of natural resources arising out of an accidental discharge of toxic or other environmentally harmful materials or liquids.

Requirements for Financial Responsibility

Motor carriers of property operating commercial motor vehicles in interstate, foreign, or intrastate commerce, and for-hire carriers of passengers operating in intrastate or foreign commerce must have at least the minimum amount of insurance required by law.

(See the Schedule of Limits in this folder for minimum levels of financial responsibility.)

Proof

The motor carrier must have proof of the minimum level of insurance at the company's principal place of business.

Proof may be shown by any of the following:

- Endorsements for Motor Carriers of Passengers policies of insurance for public liability under Sections 29 and 30 of the Motor Carrier Act of 1980 (Form MCS-90) issued by an insurer.
- Endorsements for Motor Carrier of Passengers policies of insurance for public liability under Sections 18 of the Bus Regulatory Reform Act of 1982 (Form MCS-90B*).
- A Motor Carrier Surety Bond for public liability under Section 30 of the Motor Carrier Act of 1980 (Form MCS-82) issued by a surety.
- A Motor Carrier of Passengers Surety Bond for public liability under Section 18 of the Bus Regulatory Reform Act of 1982 (Form MCS-82B*)
- A written decision, order, or authorization of the Interstate Commerce Commission authorizing the motor carrier to self-insure under 49 CFR 1043.5
- * Examples of Forms MCS-90, MCS-90B, MCS-82, and MCS-82B are included in this folder.



FEDERAL MOTOR CARRIER SAFETY REGULATIONS PART 390

General applicability

The Federal Motor Carrier Safety Regulations (FMCSRs) apply to all employers, employees, and commercial motor vehicles transporting property or passengers in interstate commerce.

Commercial Motor Vehicle: Any self-propelled or towed vehicle used on public highways in interstate commerce to transport passengers or property under one of the following conditions:

- Vehicle has gross vehicle weight rating (GVWR) or gross combination weight rating (GCWR) of 10,001 or more pounds
- Vehicle is designed to transport more than 15 passengers, including the driver
- Vehicle is used in the transport of hazardous materials in a quantity requiring placarding under **Hazardous Materials Transportation Act (HMTA)** regulations.

Exceptions to general applicability

Transportation provided by Federal, State, local, or Congressionally-approved interstate agencies are exempt from the FMCSRs. Occasional non-commercial transport, school buses, ambulance services, hearses, and fire and rescue vehicle operations, are also exempt.

Accident reports

Carriers are no longer required to file accident reports (MCS 50-T, MCS 50B) with the Federal Highway Administration (FHWA) or make notification of fatal accidents to the FHWA.

Accident: An occurrence involving a commercial motor vehicle operating on a public road that results in at least one of the following:

- A fatality
- Bodily injury to a person who, as a result of the injury, immediately receives medical treatment away from the scene of the accident
- Disabling damage to one or more motor vehicles, requiring the vehicle(s) to be towed or otherwise transported from the scene by a tow truck or other vehicle

Accident register

For a period of one year after an accident occurs, motor carriers *are required* to maintain an accident register containing the following information:

- Time and place of accident
- Driver's name
- Number of injuries and fatalities
- Hazardous materials (other than fuel) released, if any.

Motor carriers are also required to maintain copies of all accident reports required by State or other governmental entities or insurers for a period of one year after an accident occurs.

Vehicle identification

Every commercial motor vehicle operated by a motor carrier in interstate commerce must be marked, on BOTH sides of vehicle, with the following:

- The motor carrier's name or trade name
- The city and State of its principal place of business
- The motor carrier's identification number, preceded by "US DOT."

Relief from regulations during emergencies Relief from Parts 390-399 of the FMCSRs may be granted during declared emergencies to any motor carrier who provides emergency assistance.



QUALIFICATION OF DRIVERS PART 391

Motor carriers must assure that all drivers of commercial motor vehicles meet the minimum qualifications specified in Part 391

Driver Requirements

A driver must meet the following requirements:

- Be in good health and physically able to perform all duties of a driver
- Be at least 21 years of age
- Speak and read English well enough to converse with the general public, understand highway traffic signs and signals, respond to official questions, and be able to make legible entries on reports and records
- Be able to drive the vehicle safely
- Know how to safely load and properly block, brace, and secure the cargo
- Have only one valid commercial driver's license
- Provide an employing motor carrier with a list of all motor vehicle violations or a signed statement that the
 driver has not been convicted of any motor vehicle violations during the past 12 months. A disqualified driver
 must not be allowed to drive a commercial motor vehicle for any reason.
- Pass a driver's road test.
- Test negatively for controlled substances.
- Complete an application for employment.

Driver Qualification File - Check List

Every motor carrier must have a qualification file for each regularly employed driver. The file must include:

DRIVER'S APPLICATION FOR EMPLOYMENT

A person will not be allowed to drive a commercial motor vehicle unless he/she has completed and signed an application for employment

• INQUIRY TO PREVIOUS EMPLOYERS — 3 YEARS

An investigation of the driver's employment record during the preceding three years. This investigation must be made within 30 days of the date his/her employment begins.

• INQUIRY TO STATE AGENCIES - 3 YEARS

The driver's driving record for the preceding three years

ANNUAL REVIEW OF DRIVING RECORD

At least once every 12 months, a motor carrier must review the driving record of each driver. A note stating the results of this review shall be included in the Driver's Qualification File.

ANNUAL DRIVER'S CERTIFICATION OF VIOLATIONS

At least once every 12 months, a motor carrier must require each driver that it employs to prepare and furnish it with a list of all violations of motor vehicle traffic laws and ordinances during the previous 12 months. Note: Drivers who have provided information required by Section 383.31 need not repeat that information in this annual list of violations.

DRIVER'S ROAD TEST AND CERTIFICATE

A person must not be allowed to drive a commercial motor vehicle until he/she has successfully completed a road test and has been issued a certificate, or a copy of the license or certificate which the motor carrier accepted as equivalent to the driver's road test pursuant to Section 391.33

MEDICAL EXAMINATIONS

The driver must pass a medical examination conducted by a licensed health care professional. A driver must be issued a Medical Examiner's Certificate, which must be carried at all times and must be renewed every two years.

Examples of physical requirements

(Section 391.41 provides the complete list of physical requirements)

Waivers

Additional instructions for medical examination

Limited exemptions

Disqualifying offenses

Penalties

- Has no loss of a foot, a leg, a hand, or an arm
- Has no established medical history or clinical diagnosis of diabetes requiring insulin for control
- Has no clinical diagnosis of any disqualifying heart disease
- Has no clinical diagnosis of high blood pressure
- Has no clinical diagnosis of epilepsy
- Has 20/40 vision or better with corrected lenses
- Has distant binocular acuity of at least 20/40 in both eyes
- Has the ability to recognize the colors (red, green and amber) of traffic signals
- Has hearing to perceive a forced whisper
- Has no history of drug (Schedule 1) use or any other substance identified in Appendix D
- Has no clinical diagnosis of alcoholism

There are provisions for a waiver of disqualification for certain physical defects if the individual is otherwise qualified to drive:

Additional instructions for the examining doctor are available from

Director, Office of Motor Carrier Standards Federal Highway Administration 400 Seventh Street, S.W. Washington, DC 20590

The following specific conditions and types of drivers are exempt from specific record keeping requirements:

Drivers regularly employed before January 1, 1971 - Drivers who have been regular employees of a motor carrier for a continuous period that began before January 1, 1971 are exempt from:

- Applications for employment
- Road Tests
- Intermittent, casual or occasional drivers If a motor carrier employs a driver on an intermittent, casual, or occasional basis, the motor carrier must have on file the driver's name, social security number, identification number, type, issuing state of his/her motor vehicle operator's license, medical certificate, road test and certificate, and controlled substance test results.

Drivers furnished by other motor carriers - A motor carrier using a driver regularly employed by another motor carrier must have on file a signed written certificate that includes the driver's name and signature, certification of the driver's full qualifications, and expiration date of the driver's medical examiner's certificate.

A driver is disqualified from operating a commercial motor vehicle on public highways, for the following offenses:

- Revocation, suspension, or withdrawal of an operator's license
- Conviction or forfeiture of bond for the following criminal offenses while driving a commercial motor vehicle:
 - Driving while under the influence of alcohol
 - Driving while illegally using drugs
 - Driving while illegally possessing or transporting drugs
 - Leaving the scene of an accident that resulted in injury or death
 - Using a commercial motor vehicle while committing a felony.
- A first offender is disqualified for one year following conviction or forfeiture
- For a second offense within three years, a driver is disqualified for three years.



DRIVING OF COMMERCIAL MOTOR VEHICLES PART 392

Illness or fatigue

No driver is permitted to operate a motor vehicle when his/her ability and/or alertness is impaired by fatigue, illness, or any other cause that makes it unsafe to begin (or continue) to drive the vehicle.

Drugs

No driver may be on duty and possess, be under the influence of, or use

- Any Schedule I drug or other substance listed in Appendix D
- Any amphetamine or formulation of an amphetamine (including pep pills and bennies)
- Narcotics or derivatives
- Any other substance that makes driving unsafe.

Alcohol

A driver is forbidden to consume or be under the influence of alcohol within four hours of going on duty, while on duty, or while driving. A driver is forbidden to possess an alcoholic beverage while on duty, unless it is a manifested part of the shipment.

Safe loading

No one may drive or require anyone to drive a commercial motor vehicle unless the cargo is properly loaded and secured.

Railroad crossings/stopping

Motor vehicles transporting hazardous materials, and most buses transporting passengers are forbidden to cross railroad tracks without first stopping and looking both ways. Additionally, the driver must not shift gears while crossing the track.

Seat belts

A driver must not drive before correctly restraining him/herself, if the vehicle is equipped with seat belt assemblies.

Emergency signals for stopped vehicles

A vehicle stopped upon a highway or shoulder must activate the vehicle's hazard warning flashers at once. The driver must leave the flashers on until warning devices are activated. The flashers must again be used while the warning devices are being picked up before the vehicle moves on.

Placement of warning devices

The warning devices must be placed as follows (except where special rules apply):

- 1. One warning device must be placed on the traffic side of the vehicle, within ten feet of either the front or rear.
- 2. A second device must be placed facing approaching traffic approximately 100 feet away in the center of the lane or shoulder where the vehicle is stopped.
- 3. The third device must be placed about 100 feet away from the others, in the opposite direction from the stopped vehicle, and one also, in the center of the lane or shoulder.

Radar detectors

Use of radar detectors is prohibited, including the following:

- Radar detectors shall not be used by a driver in a commercial vehicle
- A driver shall not operate any commercial motor vehicle that is equipped with a radar detector.
- Motor carriers shall not require or permit a driver to violate the radar detector provisions



PARTS AND ACCESSORIES NECESSARY FOR SAFE OPERATIONS PART 393 Every commercial motor vehicle must be equipped with certain standard equipment. Other (optional) equipment or accessories are permitted only if these items do not decrease the operational safety of the vehicle.

Lights

What lighting is covered?

Part 393 specifies the required color, position, and types of lamps and reflectors for commercial motor vehicles. All lamps and reflectors for commercial motor vehicles manufactured after March 7, 1989 must meet the requirements of Federal Motor Vehicle Safety Standard (FMVSS) No. 108 (49 CFR 571.108) in effect on the date of manufacture. Certain trailers manufactured on or after December 1, 1993, must have retroreflective sheeting or additional reflex reflectors to make them more visible to other motorists under conditions of reduced visibility.

Lamps and reflectors on commercial motor vehicles manufactured on or prior to March 7, 1989 must meet either the requirements of Part 393 or of FMVSS No. 108 that were in effect on the date of manufacture.

Must be operable

All required lamps must light on request at an inspection and must light when required during regular operation of the vehicle.

Lamp mounting

All lamps must be permanently and securely mounted on a permanent part of the vehicle. The exceptions are temporary lamps, such as those used in a driveaway-towaway operation or mounted on projecting loads. Temporary lamps must be securely attached.

Stop lamps

All stop lamps on a commercial motor vehicle must activate when the service brakes are applied.

Brakes

Required brakes

Commercial motor vehicles must be equipped with the following brake systems:

- A service brake system that meets the requirements of 49 CFR 393.52, which specifies braking and holding performance.
- A parking brake system that meets the requirements of 49 CFR 393.41, which specifies parking brake activation and the method for holding the brakes in the applied position.
- An emergency brake system that conforms to the requirements of 49 CFR 393.52 and consists of either (1) emergency features of the service brake system or (2) a system separate from the service brake system.

Brakes on all wheels

Every commercial motor vehicle must be equipped with brakes acting on all wheels, with the following exceptions:

Trucks and truck tractors with three or more axles, manufactured before July 25, 1980, are not required to have steering axle brakes.

- Vehicles being towed in a driveaway-towaway operation. (However, the towed vehicle must have brakes in operation if the brakes on the towing vehicle are not capable of stopping the combination vehicle under the conditions covered by Section 393.52.)
- Any full trailer, semitrailer, or pole trailer having a gross weight of 3,000 pounds or less, provided the trailer weight does not exceed 40 percent of weight of the towing vehicle.

Breakaway and emergency braking

Every vehicle used to tow a trailer equipped with brakes must have a means of maintaining the operation of the brakes on the towing vehicle in the event that the trailer breaks away from the towing vehicle. Among the other requirements:

- Every truck or truck tractor equipped with air brakes, when used to tow other vehicles equipped with air brakes, must be capable of activating (manually and automatically) the emergency features of the trailer brakes. The brakes must apply automatically when the towing vehicle air supply pressure is between 20 and 45 psi. The manual control must be operable by the driver from the driver's seat, with seat belt in use.
- Every trailer is required to be equipped with brakes that apply automatically if the trailer breaks away from the towing vehicle*. The brakes must remain in the applied position for at least 15 minutes.

Brake tubing and hose

Safe and reliable operation of a vehicle's brakes depends upon adequate protection of the tubing and hoses from mechanical and other damage.

- *Design and construction* of brake tubing and hose must ensure proper, adequate, and continued functioning.
- *Installation* must ensure proper functioning of the hose.
- Length and flexibility must accommodate all normal motions of the parts to which the hose is attached.
- *Protection against mechanical damage* must include protection against chafing, kinking, and mechanical damage.
- Protection from high temperature must include protection from or location away from exhaust pipes and other sources of high temperatures.

Brake warning devices

Buses, trucks, and truck tractors must be equipped with a signal that provides a warning to the driver when a failure occurs in the vehicle's service brake system. This signal requirement covers hydraulic brake systems, air brake systems, vacuum brake systems, and hydraulic brakes applied or assisted by air or vacuum.

Windshield condition

Fuel systems

A vehicle's windshield must be free of discoloration and cracks in the area extending from the top of the steering wheel to within two inches of the top of the windshield.

Fuel systems used for the operation of commercial motor vehicles and of auxiliary equipment installed on or used in connection with commercial motor vehicles must meet the following requirements.

Each fuel system must be located so that

- No part of the system extends beyond the widest part of the vehicle.
- No part of a fuel tank is forward of the front axle or a power unit.
- Fuel lines do not extend between a towed vehicle and the towing unit while the combination is in motion.
- No part of the fuel system of a bus manufactured on or after January 1, 1973, is located within or above the passenger compartment.

^{*}These requirements do not apply to vehicles in driveaway-towaway operations.

Coupling devices

Cargo

securement

saddle 1

Sections 393.70 and 393.71 provide requirements for the attachment and location of the fifth wheel and requirements for the towing of full trailers. In addition, requirements for saddle mount operations are provided.

Sections 393.100-393.106 provide the standards covering cargo securement. Cargo is required to be loaded and secured so that it will not shift or fall off the vehicle. The cargo securement regulations include minimum strength requirements for securement devices and requirements for protection against longitudinal and lateral movement of the cargo. In addition, Section 393.106 covers headerboards.

Miscellaneous Parts and Accessories

Tires

Tires used on commercial motor vehicles must meet specific safety standards. No tire that is in use on a commercial motor vehicle may have any of the following defects:

- Body ply or belt material exposed through the tread or sidewall
- Tread or sidewall separation
- Audible leak (or flat)
- A cut exposing the ply or belt material
- A tread groove pattern depth of less than 4/32 of an inch (front tires) or 2/32 of an inch (other tires)
- Regrooved tires on front wheels of trucks or truck tractors which have a load carrying capacity equal to or greater than 8.25-20 8-ply rating tires
- Regrooved, recapped, or retreaded tires on the front wheels of buses are prohibited.

Sleeper berths

Sleeper berths must meet minimum dimensions. A sleeper berth must not be installed on a trailer and must be located in or adjacent to the cab. An exit door at least 18" high by 36" wide must lead directly into the cab. Section 393.76 contains special provisions for sleeper berths installed before 1975.

Sleeper berths must be equipped with adequate sheets and blankets, and a mattress and springs or innerspring mattress. They must be adequately ventilated, and located so as to protect occupants against exhaust heat and fumes and fuel leaks. A mandatory restraint system must withstand at least 6,000 lbs. of force applied toward the front of the vehicle.

Exhaust systems

Exhaust systems must meet the following requirements:

- The exhaust system and discharge must be located where it is not likely to burn or damage the electrical wiring, the fuel supply, nor any combustible part of the vehicle.
- The discharge from the exhaust system must not be located immediately below the fuel tank or the fuel tank filler pipe.
- The exhaust system may not be temporarily repaired with patch or wrap material.
- The exhaust pipe and mufflers must be securely fastened to the vehicle.
- The exhaust system may not leak or discharge at any point forward of or directly below the driver or sleeper compartment.

For trucks and truck tractors, the exhaust system must discharge at a location to the rear of the cab, or above and near the rear of the cab.

For a bus powered by a *gasoline* engine, the exhaust pipe must discharge at a point no farther forward than six inches forward of the rearmost part of the bus.

For a bus powered by *diesel or other fuel* (not gasoline), the exhaust pipe must discharge either

- At a point no farther forward than 15 inches forward of the rearmost part of the bus, or
- To the rear of all doors or windows designed to be open (not including emergency exits).

Rear end protection

Every commercial motor vehicle must be equipped with either bumpers or other devices that prevent the under ride of another vehicle. Tractors, pole trailers, and driveaway-towaway vehicles are exempt.

Seat belts

Commercial motor vehicle must be equipped with seats, seat belt assemblies, and seat belt anchorages as specified in the Federal Motor Vehicle Safety Standards (FMVSS).

Emergency Equipment

Commercial motor vehicles must carry the following emergency equipment:

- Fire extinguisher (not required for driveaway-towaway operations)
- Spare fuses
- Warning devices for stopped vehicles

Fire extinguisher

Fire extinguishers must be securely mounted and readily accessible for use. Each extinguisher must have a gauge or other indicator that shows whether the extinguisher is fully charged, and a label showing its Underwriters' Laboratories (UL) rating.

The fire extinguisher(s) must meet one of the following standards:

- One extinguisher with a UL rating of 5 B:C or more or
- Two extinguishers each with a UL rating of 4 B:C or more.
- One extinguisher with a UL rating of 10 B:C, if the vehicle is transporting placardable quantities of hazardous material.

Frames, Cab and Body Components, Wheels, Steering, and Suspension Systems

Suspension systems

Suspension systems are required to be structurally sound and in safe working order, including the following:

- Axles must be in proper alignment, and no positioning part can be cracked, broken, loose, or missing.
- Adjustable axles must have locking pins in place.
- Leaf springs must not be cracked, broken, missing, or shifted out of position.
- *Coil springs* must not be cracked or broken.
- Torsion bars must not be cracked or broken.
- Air suspensions must support the vehicle in a level position, and must not leak.

Steering systems

Steering system must be in proper working order, which includes the following:

- Steering wheel must be properly secured and no cracked or missing spokes.
- Steering wheel lash must meet the requirements of Section 393.209.
- Steering column must be securely fastened.
- *Steering system* must not have worn or welded universal joints, loose steering gear box, missing bolts, or a loose pitman arm on the steering gear output shaft.
- *Power steering unit* must not have loose or broken parts, frayed, cracked, or slipping belts; leaks; or insufficient fluid in reservoir.



HOURS OF SERVICE OF DRIVERS PART 395

General rule

The hours of service rules apply to all motor carriers and drivers, with exceptions found in paragraphs (b) through (k) of Section 395.1.

Ten-hour rule

Drivers are allowed to drive for ten hours following eight consecutive hours off duty.

15-hour rule

A motor carrier cannot permit or require a driver to drive after 15 hours are spent on duty following 8 consecutive hours off.

60 and 70 hour rules

A motor carrier must not permit or require a driver to drive after a total of

- 60 hours on duty in 7 consecutive days or;
- 70 hours on duty in 8 consecutive days
- If the driver works more than one job of any kind, that time must also be included as On Duty Time.

Driver's record of duty status

Every driver shall prepare a record of duty status (Driver's daily log) in his/her own handwriting for each 24-hour period, unless operating under the 100 air-mile radius exemption.

Failure to complete or retain the log, or knowingly falsifying logs or other reports, makes the driver and/or carrier liable to prosecution.

100 air-mile radius exemption

A driver is exempt from maintaining the driver's daily log requirements of Section 395.8 if all of the following is true:

- The driver operates within a 100 air-mile radius of the normal work reporting location.
- The driver returns to the work reporting location and is released from work within 12 consecutive hours.
- Each 12 hours on duty are separated by at least 8 consecutive hours of off duty.
- The driver does not exceed a maximum of ten hours driving time following eight consecutive hours off duty.
- The motor carrier that employs the driver maintains and retains for a period of six months accurate and true time records that show:
 - The total number of hours the driver is on duty each day
 - The time the driver reports for duty each day
 - The time the driver is released from duty each day
 - The total time for the preceding seven days

Submitting/ retaining duty status log

The driver must submit the original log sheet to the employing carrier within 13 days after completion. When a motor carrier uses a driver initially or intermittently, that carrier must obtain from him/her a signed statement giving the total time on duty during the immediately preceding 7 days and the time at which he/she was last relieved of duty. Records of duty status must be maintained for a minimum of six months at the carrier's principal place of business.

Automatic on-board recording devices Alternatively, motor carriers may require a driver to use an automatic on-board recording device to record duty status. The driver must still have in his/her possession records of duty status in automated or written form, for the previous seven consecutive days. All hard copies of the driver's record of duty status must be signed by the driver.



INSPECTION, REPAIR, AND MAINTENANCE PART 396

Every motor carrier, its officers, drivers, agents, representatives, and employees directly concerned with inspection or maintenance of commercial motor vehicles must comply and be conversant with these rules.

General requirements

Every carrier shall systematically inspect, repair, and maintain all commercial motor vehicles under its control.

Record keeping requirements

Motor carriers must maintain the following information for every vehicle they have controlled for 30 days or more:

- · Identifying information, including company number, make, serial number, year, and tire size
- · A schedule of inspections to be performed, including type and due date
- · Inspection, repair, and maintenance records
- · Records of tests conducted on buses with pushout windows, emergency doors, and marking lights.

These records must be retained for one year at the location where the vehicle is garaged, and maintained for six months after the vehicle leaves the carrier's control (via sale, trade-in, or scrap).

Roadside inspection reports

Any driver who receives a roadside inspection report must deliver it to the motor carrier.

Certification of roadside inspection reports

An official of the motor carrier is to examine the roadside inspection report and ensure that any violations or defects noted on the report are corrected. Within 15 days after the inspection, the carrier must sign the completed roadside inspection report to certify that all violations have been corrected, and then return it to the indicated address. A copy must be retained for 12 months from the date of inspection.

Post-trip inspection report

Every carrier must require its drivers to prepare a daily written post-trip inspection report at the end of each driving day. Every driver is responsible for preparing such a report for each vehicle driven. This report must cover at least the following parts and accessories:

- · Service brakes (including trailer brake connections)
- · Parking (hand) brake
- · Steering mechanism
- Lighting devices and reflectors
- · Tires
- · Horn
- Windshield wipers
- Rearview mirrors
- · Coupling devices
- Wheels and rims
- Emergency equipment.

The report must list any condition that the driver either found or had reported to him/her that would affect safety of operation or cause a breakdown. If no defect or deficiency is reported or found, the report should state this. The driver must sign the report in all cases. Before dispatching the vehicle again, a carrier shall ensure that a certification has been made as to any defect or deficiency, that they have been corrected, or state those deficiencies that do not require immediate correction. Carriers must keep the original post-trip inspection report and the certification of repairs for at least three months from the date of preparation.

Before starting out, the driver must be satisfied that the motor vehicle is in safe operating condition. If the last vehicle inspection report notes any deficiencies, the driver must review and sign to acknowledge that necessary repairs have been completed.

Periodic inspection

Every commercial vehicle, including each segment of a combination vehicle requires periodic inspection that must be performed at least once every 12 months. At a minimum, inspections must include all items enumerated in the Minimum Periodic Inspection Standards, Appendix G, Subchapter B, Part 396. Carriers may perform required annual inspections themselves. The original or a copy of the periodic inspection report must be retained by the motor carrier for 14 months from the report date.

Documentation of Inspection

Documentation (report, sticker, or decal) of the most recent periodic inspection must be kept on the vehicle.

Inspector qualification

Motor carriers must ensure that persons performing annual inspections are qualified. Inspectors must:

- understand the inspection standards of Part 393 and Appendix G
- be able to identify defective components
- have knowledge and proficiency in methods, procedures, and tools.

Inspector training or experience

Inspectors may have gained experience or training by:

- completing a State or Federal training program, or earning a State or Canadian Province qualifying certificate in commercial motor vehicle safety inspections
- a combination of other training or experience totaling at least a year.

Evidence of qualifications

Motor carriers must retain evidence of an inspector's qualifications until one year after the inspector ceases to perform inspections for the carrier.

Equivalent to periodic inspection

The motor carrier may meet periodic inspection requirements through:

- State or other jurisdiction's roadside inspection program or
- mandatory State inspection program These programs must be determined by the FHWA to be comparable to the Federal annual inspection program.

Brake inspector qualification

The motor carrier is responsible for ensuring that all inspections, maintenance, repairs, and service to brakes of commercial motor vehicles comply with these regulations. The carrier must ensure that the employees responsible for brake inspection, maintenance, service, or repairs meet minimum brake inspector qualifications.

Qualifications for brake inspectors

The brake inspector must:

- understand and be able to perform the brake service and inspection.
- · know the methods, procedures, tools and equipment needed and
- be qualified to perform brake service or inspection by training and/or experience.

Qualifying brake training or experience

Qualifying brake training or experience includes successful completion of:

- a State, Canadian Province, Federal agency, or union training program,
- a State-approved training program,
- training that led to attainment of a State or Canadian Province qualifying certificate to perform assigned brake service or inspection tasks, including passage of CDL air brake test in the case of a brake inspection, or
- one year of brake-related training, experience, or combination of both.

Maintaining evidence of brake inspector qualifications Motor carriers must maintain evidence of inspector qualification at the principal place of business or the location where the inspector works. Evidence must be retained for the period during which the brake inspector is employed in that capacity, and for one year thereafter.



MOTOR CARRIERS OF PASSENGERS (BUSES)

Historically, the FHWA only regulated "for-hire" transportation of passengers. For-hire motor carriers of passengers are subject to all of the FMCSRs.

Private motor carriers of passengers (PMCPs) became subject to the FMCSRs on January 1, 1995. They are separated into two groups (business or nonbusiness) and are exempt from certain requirements of the FMCSRs.

For Hire Carriers

Three factors must be present before a motor carrier of passengers is classified as a "for-hire" carrier:

- 1. The motor carrier provides interstate transportation of passengers for a commercial purpose;
- 2. The motor carrier is compensated, either directly or indirectly, for the transportation service provided; and
- 3. The transportation service is generally available to the public at large.

Examples of for-hire transportation of passengers include, intercity bus service, charter bus service, canoe rental company bus service, and hotel bus service.

Business PMCPs

Business PMCPs provide private transportation of passengers in the furtherance of a commercial purpose.

Examples of business PMCPs include companies that use buses to transport their own employees and professional musicians who use buses for concert tours.

Non-business PMCPs

Non-business PMCPs provide private transportation of passengers that is not in the furtherance of a commercial purpose.

Examples of non-business PMCPs include churches, private schools, scout groups, and other organizations that may purchase or lease buses for the private transportation of their respective groups.

Private Motor Carriers of Passengers (PMCP): Business

What is a Business PMCP?

Business PMCPs provide private transportation of passengers in the furtherance of a commercial purpose. Examples include companies that use buses to transport their own employees and professional musicians who use buses for concert tours. Commercial businesses that provide passenger transportation to the general public are <u>not</u> business PMCPs.

Applicability of FMCSRs

The chart below summarizes the applicability of the Federal Motor Carrier Safety Regulations (FMCSRs) to Business Private Motor Carriers of Passengers (PMCPs).

PART	REGULATORY TOPIC	APPLICABLE
382	Controlled Substances and Alcohol Use and Testing	Yes
383	Commercial Driver's License	Yes
387	Financial Responsibility (Insurance/Surety)	No
390	General Applicability & Definitions	Yes
391	Qualifications of Drivers	Partial
392	Driving of Commercial Motor Vehicles	Yes
393	Parts and Accessories	Yes
395	Driver's Hours of Service	Yes
396	Inspection, Repair and Maintenance	Yes

Exemptions

Business PMCPs are not subject to:

- Minimum levels of financial responsibility
- Road test requirements of Part 391

Private Motor Carriers of Passengers (PMCP): Non-business

What is a Non-business PMCP?

Non-business PMCPs provide private transportation of passengers that is not in the furtherance of a commercial purpose. Examples of non-business PMCPs include churches, private schools, civic organizations, scout groups, and other charitable organizations that may purchase or lease buses for the transportation of their respective groups.

The chart below summarizes the applicability of the Federal Motor Carrier Safety Regulations (FMCSRs) to Non-business Private Motor Carriers of Passengers (PMCPs).

Applicability of FMCSRs

PART	REGULATORY TOPIC	APPLICABLE
382	Controlled Substances and Alcohol Use and Testing	Yes
383	Commercial Driver's License	Yes
387	Financial Responsibility (Insurance/Surety)	No
390	General Applicability & Definitions	Yes
391	Qualifications of Drivers	Partial
392	Driving of Commercial Motor Vehicles	Yes
393	Parts and Accessories	Yes
395	Driver's Hours of Service	Partial
396	Inspection, Repair and Maintenance	Partial

Exemptions

Non-business PMCPs are not subject to:

- Minimum levels of financial responsibility
- Subpart C of Part 391
- Subpart D of Part 391
- Subpart F of Part 391
- Most paper work and record-keeping requirements of Parts 390, 391, 395, and 396.

Applicability of The Minimum Financial Responsibility Regulations to Motor Carriers of Passengers

Applicability

Regulations covering minimum levels of financial responsibility (insurance) are found in 49 CFR Part 387, Subpart B. These regulations are only applicable to "for-hire" carriers transporting passengers in interstate commerce.

The chart below summarizes the applicability of the minimum levels of financial responsibility regulations to passenger carriers.

	"For Hire" Passenger Carrier	Business PCMPs	Non-business PCMPs
Vehicle with a seating capacity of 16 or more	\$5,000,000 in surance co verage required	Not Subject	Not Subject
Vehicle with a seating capacity of 15 or less	\$1,500,000 in surance co verage required	Not Subject	Not Subject

Exemptions

Minimum Financial Responsibility Regulations do not apply to:

- A motor vehicle transporting only school children and teachers to and from school
- A motor vehicle providing taxicab service, having a seating capacity of less than 7 passengers, and not operating on a regular route or between specified points
- A motor vehicle carrying less than 16 individuals in a single daily round trip to commute to and from work

Common Questions About the Applicability of the FMCSRs to Private Motor Carriers of Passengers (PMCPs)

Are PMCPs required to mark their vehicles as required by 49 CFR Part 390.21?

Yes. All PMCPs must register with the FHWA as required by 49 CFR Part 385, and mark their vehicle with their name, city and state, and U.S. DOT number.

2. Are non-business PMCP drivers required to be medically examined?

No. Section 391.68 (a)(4) specifically states that much of Sections 391.41 and 391.45, which require a driver to be medically examined and to have a medical examiner's certificate on his/her person, do not apply to non-business PMCPs. However, non-business PMCP drivers are subject to the minimum physical qualification standards found in Section 391.41 (b) (1)-(13).

Non-business PMCPs should become familiar with the minimum physical qualification standards found in Section 391.41 and the driver waiver conditions of Section 391.49.

Non-business PMCP drivers may be placed out-of-service during terminal, en route, or destination inspections if they are required by Section 391.41 to have a waiver and do not possess one.

3. Are non-business PMCPs subject to the current controlled substances testing regulations (Subpart H of Part 391)?

No. However, a separate rule was published in response to the Omnibus Transportation Employee Testing Act of 1991. That rule, which becomes effective on January 1, 1996, for entities with fewer than 50 drivers, will require drug and alcohol testing for all operators of vehicles who are required by Part 383 to have a commercial driver's license (CDL). No waiver or exemption from any part of that rule, including the record keeping requirements, was provided to non-business PMCPs.

4. Are non-business PMCP drivers subject to the driver's hours of service regulations?

Yes. However, they are not required to prepare or maintain records of duty status. Non-business PMCP driver's hours of service will be evaluated by enforcement officers during terminal, en route, and destination inspections based on evidence available at the inspection location.

It is recognized that some individuals who volunteer to drive for non-business PMCPs may also drive for other motor carriers and in that capacity are required to maintain a record of duty status. All on-duty time performed for a non-business PMCP must be recorded on the records of duty-status submitted to that driver's regularly employing motor carrier.

5. Are non-business PMCPs required to have their vehicles inspected?

Yes. Section 396.17 requires that commercial motor vehicles be inspected at least once annually. The inspection must be completed by a qualified inspector and must include all components identified in Appendix G of the FMCSRs. Documentation of this inspection must be kept on the vehicle.

Applicability of The Federal Motor Carrier Safety Regulations to School Bus Transportation

Applicability of FMCSRs (Parts 390-399) to School Bus Transportation

	School To Home or Home To School	Extracurricular School Actilvities
Public School Transporting Students	Not Subject	Not Subject
Private School Transporting Pre-primary, Primary, and Secondary Students	Not Subject	Subject as Non-business PMCPs
Private School Transporting Post-secondary Students	Subject as Non-business PMCPs	Subject as Non-business PMCPs
"For Hire" Contractors Transporting Pre-primary, Primary and Secondary Students	Not Subject	Subject as "For Hire" Carriers
"For Hire" Contractors Transporting Post-secondary Students	Subject as "For Hire" Carriers	Subject as "For Hire" Carriers

Applicability of Minimum Financial Responsibility Regulations to School Bus Transportation.

	Home To School or School To Home	Extracurricular School Trips Organized, Sponsored and Paid for by the School	Extracurricular School Trips Organized, and Paid for by an Independent Group (e.g.,Athletic Boosters Club)
"For Hire" Contractors Transporting Pre-Primary, Primary and Secondary Students and Accompanying Teachers	Not Subject	Not Subject	Bus Seating Capacity of 16 or more: \$5,000,000 Insurance Co verage Required Bus Seating Capacity of 15 or less: \$1,500,000 Insurance Co verage Required
"For Hire" Contractors Transporting Post-secondary Students	Bus Seating Capacity of 16 or more: \$5,000,000 Insurance Coverage Required Bus Seating Capacity of 15 or less: \$1,500,000 Insurance Coverage Required	Bus Seating Capacity of 16 or more: \$5,000,000 Insurance Coverage Required Bus Seating Capacity of 15 or less: \$1,500,000 Insurance Coverage Required	Bus Seating Capacity of 16 or more: \$5,000,000 Insurance Coverage Required Bus Seating Capacity of 15 or less: \$1,500,000 Insurance Coverage Required



ACCIDENT COUNTER-MEASURES

The former requirement for reporting accidents to the Federal Highway Administration (FHWA) (accident notification under **49 CFR Part 394**) has been replaced with a new requirement for retaining and analyzing accident information.

Background

Purpose

Determining preventability

Cases and countermeasures

Contents and attachments

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As part of the ongoing FHWA safety management effort to reduce the number of vehicle accidents on highways, assistance by safety specialists in accident analysis and countermeasures planning is now an integral part of compliance reviews conducted by the Office of Motor Carriers (OMC). Accident countermeasures are examples of defensive strategies designed to reduce preventable accidents.

This folder is designed to provide motor carriers and drivers with an introduction to the concepts of preventability analysis and accident countermeasures. The material suggests practical measures that can be taken now to prevent accidents, though its main intent goes further. The core of the presentation is a series of case histories of successful countermeasures. These are true stories of industry successes in promoting highway safety. The case histories are presented, together with a guide called *Determining Preventability of Accidents*, to help readers analyze accidents and create strategies to keep similar accidents from happening in the future.

The Office of Motor Carriers intends to stimulate thinking and discussion about accident preventability and prevention within the motor carrier industry. The preventability guide and the *Accident Countermeasures* cases are not rating sheets nor orders from above to be followed exactly. They are guidelines and discussion tools to help carriers and drivers look at their unique operations and practices with an eye to identifying opportunities to make safety improvements.

No two accidents or carriers are exactly alike, and the FHWA recognizes that not all accidents are preventable. Some types of accidents, furthermore, can be prevented by drivers, while others require changes in motor carrier practices and policies or equipment. The new FHWA method for determining preventability is based on examination of the facts in accident records.

The countermeasures cases in this file actually occurred. They are true success stories that show how relatively modest improvements led to significant reductions in accident rates.

This folder contains a selection of Accident Countermeasures cases and a guide entitled *Determining Preventability of Accidents*. Attachments include:

- the February 1993 Bulletin for all Motor Carriers (FHWA HFO-1), announcing
 the rule change that ended the accident reporting program, and the beginning of the
 introduction of the accident countermeasures effort into the Federal safety review
 program.
- a sample of a suggested Accident Register.
- a chart, Revenue Necessary to Pay for Accident Losses.

A Guide to Determining Preventability of Accidents

The heart of accident analysis is the determination of preventability, based on the facts furnished in the motor carrier's recordable accident register, and from various other sources. These sources of information must be evaluated in light of all available facts that are pertinent to the cause of the accident. Digging out these facts from the information on these reports can be difficult in practice due to the limited data contained in some reports. But the information can be obtained in many instances by a detailed analysis and reconstruction of the accident sequence.

Each accident must be judged individually. Certain types will generally fall in the non-preventable category, and certain others, in the absence of extenuating circumstances and conditions, fall in the preventable category. The types of accidents listed below do not cover every accident that may occur, but they are intended to provide general guidance to assist in determining preventability.

Non-Preventable Accidents

Struck in Rear by Other Vehicle

Non-preventable if

- Driver's vehicle was legally and properly parked
- Driver was proceeding in his/her own lane of traffic at a safe and lawful speed
- Driver was stopped in traffic due to existing conditions or was stopped in compliance with traffic sign or signal or the directions of a police officer or other person legitimately controlling traffic
- Driver was in proper lane waiting to make turn.

Struck While Parked

Non-preventable if

- Driver was properly parked in a location where parking was permitted
- Vehicle was stopped, parked, or left standing in accordance with Sections 392.21 and 392.22 of the Federal Motor Carrier Safety Regulations.

Preventable Accidents

Accidents at Intersections

Preventable if

- Driver failed to control speed so that he/she could stop within available sight distance
- Driver failed to check cross-traffic and wait for it to clear before entering intersection
- Driver pulled out from side street in the face of oncoming traffic
- Driver collided with person, vehicle, or object while making right or left turn
- Driver collided with vehicle making turn in front of him/her.

Striking Other Vehicle in Rear

Preventable if

- Driver failed to maintain safe following distance and have his/her vehicle under control
- Driver failed to keep track of traffic conditions and did not slow down
- Driver failed to ascertain whether vehicle ahead was moving slowly, stopped, or slowing down for any reason
- Driver misjudged rate of overtaking
- Driver came too close before pulling out to pass
- Driver failed to wait for vehicle ahead to move into the clear before starting up
- Driver failed to leave sufficient room for passing vehicle to get safely back in line.

Sideswipe and Head-on Collisions

Preventable if

- Driver was not entirely in his/her proper lane of travel
- Driver did not pull to right and slow down or stop for vehicle encroaching on his/her lane of travel when such action could have been taken without additional danger.

Struck in Rear by Other Vehicle

Preventable if

- Driver was passing slower traffic near an intersection and had to make sudden stop
- Driver made sudden stop to park, load, or unload
- Vehicle was improperly parked
- Driver rolled back into vehicle behind them while starting on grade

Squeeze Plays and Shutouts

Preventable if

• Driver failed to yield right-of-way when necessary to avoid accident

Backing Accidents

Preventable if

- Driver backed up when backing could have been avoided by better planning of his/her route
- Driver backed into traffic stream when such backing could have been avoided
- Driver failed to get out of cab and check proposed path of backward travel
- · Driver depended solely on mirrors when it was practicable to look back
- Driver failed to get out of cab periodically and recheck conditions when backing a long distance
- Driver failed to check behind vehicle parked at curb before attempting to leave parking space
- Driver relied solely on a guide to help him/her back
- Driver backed from blind side when he/she could have made a sight-side approach.

Accident Involving Rail Operated Vehicles

Preventable if

- Driver attempted to cross tracks directly ahead of train or streetcar
- Driver ran into side of train or streetcar
- Driver stopped or parked on or too close to tracks.

Accidents While Passing

Preventable if

- Driver passed where view of road ahead was obstructed by hill, curve, vegetation, traffic, adverse weather conditions, etc.
- Driver attempted to pass in the face of closely approaching traffic
- Driver failed to warn driver of vehicle being passed
- Driver failed to signal change of lanes
- Driver pulled out in front of other traffic overtaking from rear
- Driver cut in too short while returning to right lane.

Accidents While Being Passed

Preventable if

 Driver failed to stay in his own lane and hold speed or reduce it to permit safe passing.

Accidents While Entering Traffic Stream

Preventable if

- Driver failed to signal when pulling out from curb
- Driver failed to check traffic before pulling out from curb
- Driver failed to look back to check traffic if he/she was in position where mirrors did not show traffic conditions
- Driver attempted to pull out in a manner that forced other vehicle(s) to change speed or direction
- Driver failed to make full stop before entering from side street, alley, or driveway
- Driver failed to make full stop before crossing sidewalk
- Driver failed to yield right of way to approaching traffic.

Pedestrian Accidents

Preventable if

- Driver did not reduce speed in area of heavy pedestrian traffic
- Driver was not prepared to stop
- Driver failed to yield right of way to pedestrian.

Mechanical Defects Accidents

Preventable if

- Defect was of a type that driver should have detected in making pre-trip or enroute inspection of vehicle
- Defect was of a type that driver should have detected during the normal operation of the vehicle
- Defect was caused by driver's abusive handling of the vehicle
- Defect was known to driver, but ignored
- Driver was instructed to operate with known defect.

All Types of Accidents

Preventable if

- Driver was not operating at a speed suitable for the existing conditions of road, weather, and traffic
- Driver failed to control speed so that he/she could stop within assured clear distance
- Driver misjudged available clearance
- Driver failed to yield right-of-way to avoid accident
- Driver failed to accurately observe existing conditions
- Driver was in violation of company operating rules or special instructions, the regulations of any Federal or State regulatory agency, or any applicable traffic laws or ordinances.

Accident Countermeasures: Success Stories

References in parentheses are to cases in the Commercial Vehicle Preventable Accident Manual (Countermeasures Manual).

CASE #1.

An Oregon-based carrier transporting wood chips from the coast to the Eugene area began to have an unusual number of accidents. An analysis by the Safety Specialist revealed that the majority of the accidents occurred on a three-mile stretch of the route being used. This two-lane road was narrow, winding, and frequented by tourists in summer; and plagued with fog, ice, and snow in winter. Further investigation revealed that for the past eight months construction had been underway along the three-mile stretch about the same time the accidents had been happening. The highway department indicated that construction would continue for another six months.

COUNTERMEASURE:

The Safety Specialist discussed the findings with management and recommended the carrier's vehicles be rerouted until the construction was complete.

(Countermeasures Manual Case No. A11-Planning Schedules, Loads and Routes)

The carrier realized that it could not continue with the increased level of accidents for another six months and agreed with the recommendation. Although the new route was approximately 30 miles more each way, the benefit of reducing accidents outweighed this.

CASE # 2.

An Illinois-based produce hauler was experiencing a high number of driver injuries resulting in a large number of workman compensation claims. A Safety Specialist's review of the accidents revealed that drivers were wrenching their necks inside their cabovers (vs. conventional cabs) when passing over bumps in the road. The drivers were being thrown unexpectedly out of their seats and into the windshield or ceiling of their tractors. The cabovers were identified as being the primary source of these incidents the driver's seat is located directly over the front wheels and provides little resistance or cushion to reduce the impact of bumps in the road to the driver.

COUNTERMEASURE:

The Safety Specialist recommended that the carrier insert language into their employee manual requiring drivers to wear their seat belts.

(Countermeasures Manual Case No. A8-Company Driver Manuals)

The carrier agreed to the recommendation and, in addition, instructed guards at each terminal gate to check drivers before leaving to ensure they were complying with the company's policy. This simple solution, which had been overlooked by everyone, turned out to be the key in reducing this type of injury to zero.

CASE # 3.

An Indiana-based school bus contractor was experiencing a high number of accidents caused by driver inattention. After examining all of the carrier's accidents, the Safety Specialist determined that they all were occurring during the month of June. The Safety Specialist also came to the conclusion that no specific driver or vehicle was responsible for the accidents. It seemed that the drivers, in general, were becoming inattentive because summer was near and they were anticipating the end of the school year. Further analysis revealed that the Safety Director held two safety meetings a year with the drivers, one in September and another in February.

COUNTERMEASURE:

The Safety Specialist recommended to the carrier that it should begin holding safety meetings sometime in April and provide each driver with a one-page handout in the period prior to the start of these meetings to keep them alert.

(Countermeasures Manual Case No. A7-Fleet Safety Program and Supervision)

This simple solution turned out to be the key in reducing these accidents to zero. When the Safety Director was asked why he had never noticed this problem, he replied "This was right there in front of me, but I just never had the time to sit down and look at it in this manner!"

CASE # 4.

A Utah-based carrier, which conducts the majority of its business west of the Mississippi River, was experiencing a high number of accidents.

After discussion with some drivers and management officials, an analysis by the Safety Specialist revealed that a high number of accidents occurred during the same time of day on a three-to-five mile section of a certain interstate, heading west. Apparently, drivers were being blinded as they came over the crest of a very large hill at sunset.

COUNTERMEASURE:

The Safety Specialist discussed the situation with management and recommended that the carrier change the time its drivers were being dispatched. The carrier agreed with the recommendation and immediately began to dispatch drivers an hour earlier or an hour later in order to avoid driving over the hill at sunset. This change eliminated the accidents.

CASE # 5.

During a review of a large Indiana-based household goods carrier that operates over 5,000 tractor-trailers, a Safety Specialist discovered that the carrier was experiencing a high number of rear-end collisions. Some of these accidents caused damage to the extent that they were reportable to the DOT. Most, however, were of a lesser amount but still added to the carrier's cost of operation.

COUNTERMEASURE:

The Safety Specialist recommended the installation of brake and turn signal lights at the top of the carrier's trailers.

(Countermeasures Manual Case No. B6-Turning Left and Right)

(Countermeasures Manual Case No. C10-Vehicle lighting and Conspicuity)

This reduced accidents almost immediately.

CASE # 6.

During a review of a Washington-based grocery company, operating over 100 tractor trailers primarily in urban areas, the Safety Specialist discovered an accident pattern - an inordinate number of right turn accidents. Some of the accidents caused damage to the extent that they were reportable to DOT. Most, however, caused damages in a lesser amount but still added to the carrier's cost of operation.

COUNTERMEASURE:

The Safety Specialist discussed the findings with the carrier and recommended the installation of turn signals at a higher level on trailers.

(Countermeasures Manual Case No. B6-Turning Left and Right)

(Countermeasures Manual Case No. C10-Vehicle Lighting and Conspicuity)

The carrier agreed and also applied signs to the back of each trailer, on the right side, warning of wide turns. Accidents dropped dramatically over a very short period of time.

CASE #7.

During a recent review, a Washington-based carrier that operates over 2,400 tractor trailers west of the Mississippi River was found to have a high number of loss-of-control accidents during adverse driving conditions.

COUNTERMEASURE:

The Safety Specialist recommended the carrier require drivers to attend a safety meeting.

(Countermeasures Manual Case No. A7-Fleet Safety Program and Supervision)

(Countermeasures Manual Case No. A9-Driver Training Aids)

To promote attendance, the carrier scheduled ten Saturday meetings in various locations and required all drivers to attend one. Drivers were paid to attend the meetings and coffee and doughnuts were provided. The safety meeting consisted of approximately four hours of training on the Federal Motor Carrier Safety Regulations, driving in adverse conditions, and other general safety information. Within a short period of time, the company records indicated a 60 percent reduction in accidents.

CASE #8.

An Oregon-based produce hauler, generally running from Portland to Los Angeles was having a very high number of backing accidents. Considering the areas in which they were required to load and unload, the carrier had not found the number of accidents unusual. An analysis by the Safety Specialist revealed that the carrier was using qualified but relatively inexperienced drivers in sleeper teams. They were paid for load/unload time whether they actually had to do the work or not. Although most of the backing accidents involved damage costing less than \$1,000, one dock worker had been crushed between a trailer and the dock, which emphasized the danger inherent in backing accidents.

COUNTERMEASURE:

The Safety Specialist recommended that each driver attend a safety meeting, and that a safety notice be distributed to all drivers requiring them to assist each other during backing maneuvers.

(Countermeasures Manual Case No. A7-Fleet Safety Program and Supervision)

(Countermeasures Manual Case No. A9-*Driving Training Aid*)

(Countermeasures Manual Case No. B3-*Start-Up/Back-Up*)

The carrier agreed with the suggestion and required every driver to attend a safety meeting (meetings were held on several Saturdays to allow attendance by all). Drivers were paid overtime and coffee and donuts were furnished. The meeting contained about four hours of training on proper procedures for backing. In addition, a safety notice was distributed in driver's paychecks instructing them to assist each other during backing maneuvers. Backing accidents dropped quickly, and because of increased driver awareness, there was a reduction in other types of accidents as well.

CASE # 9.

A Missouri-based farm commodity and hazardous material transporter was experiencing a high number of accidents. Examination of all its accidents revealed that they occurred during bad weather and that the majority of them were caused by drivers who were not paying attention to the road conditions, (that is, they were driving too fast for the weather).

COUNTERMEASURE:

The Safety Specialist recommended that the carrier implement a safe driver recognition/incentive program and a driver training program geared to avoiding accident situations and to driving in adverse weather conditions.

(Countermeasures Manual Case No. A3-Safe Driving Recognition)

(Countermeasures Manual Case No. A4-Driver Safety Infractions)

(Countermeasures Manual Case No. A7-Fleet Safety Program and Supervision)

(Countermeasures Manual Case No. B11-Driving in Adverse Conditions)

The carrier agreed with the recommendations, and now holds quarterly safety meetings with 95 percent driver participation. Any driver who attended the previous meeting and was accident free during the quarter receives a \$150 U.S. Savings Bond. The carrier also, implemented a driver training program and classroom instruction on accident situations and driving in adverse weather conditions. After the carrier took this proactive stance, its accident rate improved from 0.88 to 0.37 over 12 months.

CASE # 10.

A city-based carrier that operates over 30 delivery trucks was experiencing a high number of accidents.

An analysis by the Safety Specialist revealed that a majority of accidents occurred within a two to three block area downtown every Thursday between nine and ten in the morning. The analysis also revealed that drivers were paid every Thursday morning, and that a number of banks are located within the problem area. Apparently, after they were paid in the morning, drivers would stop at the banks while on-duty to cash their paychecks.

Driving in this highly congested area during rush hour placed both the driver and vehicle in extremely unfavorable conditions. Cashing the checks during the morning rush hour traffic was placing both the driver and vehicle in the worst possible place at the busiest time of the day and led to the high number of accidents.

COUNTERMEASURE:

After further discussion with management officials, the Safety Specialist recommended that the carrier change the time the drivers were being paid. The carrier agreed with the recommendation and began paying the drivers at the end of the day. The change forced drivers to cash their paychecks after work while off-duty, and eliminated the accidents.

CASE # 11.

An Illinois-based carrier that operates over 200 tractor trailers was experiencing a high number of accidents. An analysis by the carrier's Safety Director revealed that the majority of these accidents fell into three main categories. The carrier was experiencing:

- too many right turn accidents
- too many backing accidents
- too many right lane change accidents.

COUNTERMEASURE:

After further discussion among management officials, the carrier developed a program that was based on the three accident types that were occurring most frequently. Each accident type was assigned a different color dot sticker: red, blue, and yellow. The number one accident situation (right turns) was assigned a red dot sticker. The number two accident situation (backing) was assigned a blue dot sticker. The number three accident (right lane change) was assigned a yellow dot sticker. The dots were placed on the right side mirror of the motor carrier's vehicle as a safety reminder to drivers who had accidents.

The carrier also placed a large red sticker halfway back on the side of trailers to aid drivers when making right turns. If a driver could not see the colored sticker in the right side mirror, then he/she had not pulled far enough out to execute the turn.

After implementing the program, the carrier began to see accident numbers starting to decrease considerably.

After a few months, however, the carrier became lax in seeing that the dots remained affixed. Accident rates started to rise again. The Safety Director states that the carrier now makes sure that when a unit comes through the shop, the safety dots are checked and replaced if needed. Other carriers could easily copy this program to meet their own company's most frequent accident situations.

CASE # 12.

Motor carriers in California and Tennessee have recently experienced accidents involving the driver's inability to see other vehicles because of poor visibility (specifically, in fog or dust storms).

COUNTERMEASURE:

According to researchers here and in Europe, use of front and rear running lights during daylight hours would save lives and prevent injuries, since many crashes are caused by poor visibility. These running lights can be:

- special additional lights
- reduced-intensity headlights for daytime use, or
- high-intensity parking lights.

In Finland, researchers found that, during a six-year period, the use of daytime running lights in winter reduced daytime crashes by 21 percent. In Sweden, results were similar: crashes decreased by 11 percent. Finland, Sweden, and Denmark now require all drivers to use daytime running lights. In 1989, Canada passed legislation requiring that all new cars, trucks, vans, and buses be equipped with front lights that turn on whenever the engine is running. According to James White of Transport Canada, about 20 percent of all drivers voluntarily use running lights in the daytime. By 1994, he said, enough new vehicles will be on the road to bring the total to two in five vehicles with lights on in the daytime.

Of course, all of these countries are in the north where it can be relatively dark much of the day in the winter. What about here in the United States? Some States already require the use of headlights just after sunrise, before sunset, or whenever visibility is poor. New York recently passed a law requiring the use of low-beam headlights whenever it rains, snows, sleets, or hails. Any time one has windshield wipers on in New York, headlights must be switched on or the driver risks being ticketed for an equipment violation (a \$100 fine).

In one study, the Insurance Institute of Highway Safety (a research organization supported in part by the insurance industry) equipped 2,000 trucks and vans with automatic daytime running lights for a year. Crashes decreased by 13 percent in bad weather and 7 percent at other times - less than the reduction shown in several European studies but enough to lend support to the use of daytime running lights.

A government study completed in April 1990 showed that, in light levels equivalent to early morning or twilight, drivers were able to see vehicles with running lights sooner than those with no lights. The lights improved visibility and provided drivers going 55

miles per hour with about three extra seconds to brake or take other action to prevent a crash. Several car makers, including General Motors, Chrysler, Ford, and Volvo, voiced support for daytime running lights as a way to decrease highway deaths and injuries. General Motors has filed a petition with the National Highway Traffic Safety Administration for clearance to install daytime running lights.

Daytime running lights won't affect gas mileage by much: for every \$10 spent on gas, they would cost an extra nickel (0.5 percent, according to a study by the Canadian government). Some people may object that these daytime lights can be blinding for other drivers, especially when reflected in rearview mirrors and for older drivers. One government study indicated that glare in the rearview mirror during daytime could be a problem, though the age of the driver was not a significant factor. The right intensity for running lights under different conditions "should be considered" in recommending lamp design, the study concluded.

Meanwhile, it makes good safety sense to switch on low-beam headlights in adverse weather conditions, at daybreak, dusk, and on dark and overcast winter afternoons.

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REVENUE NECESSARY TO PAY FOR ACCIDENT LOSSES

This table shows the dollars of revenue required to pay for different amounts of costs for accidents.

It is necessary for a motor carrier to generate an additional \$1,250,000 of revenue to pay the cost of a \$25,000 accident, assuming an average profit of 2%. The amount of revenue required to pay for losses will vary with the profit margin (as shown in chart below).

REVENUE REQUIRED TO COVER LOSSES

YEARLY ACCIDENT COSTS	VS. PROFITMARGIN				
	1%	2%	3%	4%	5%
\$1,000	\$100,000	\$50,000	\$33,000	\$25,000	\$20,000
5,000	500,000	250,000	167,000	125,000	100,000
10,000	1,000,000	500,000	333,000	250,000	200,000
25,000	2,500,000	1,250,000	833,000	625,000	500,000
50,000	5,000,000	2,500,000	1,667,000	1,250,000	1,000,000
100,000	10,000,000	5,000,000	3,333,000	2,500,000	2,000,000
150,000	15,000,000	7,500,000	5,000,000	3,750,000	3,000,000
200,000	20,000,000	10,000,000	6,666,000	5,000,000	4,000,000

Accident costs consist of any /or all of the following:

- Vehicle Damage
- Loss of Revenue
- Administrative Costs
- Police Reports
- Cargo Damage
- Possible Effects on Cost of Insurance
- Possible Effect on Cost of Workmen's Compensation Insurance
- Towing
- Storage of Damaged Vehicle
- Damage to Customer Relationships
- Legal Fees
- Customer's Loss of Revenue Directly Attributable to Accident

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